

ABSTRACT

The present invention relates to preventive, therapeutic, and diagnostic compositions and methods employing lymphocytes having T-cell receptors and chimeric receptors. In particular, the invention relates to pre-selected dual-specificity lymphocytes having endogenous T-cell receptors and chimeric T-cell receptors that recognize a strong antigen and tumor associated antigens where the pre-selected population of adoptively transferred lymphocytes is activated by *in vivo* immunization, thereby increasing the effectiveness of adoptive immunotherapy.